

AMENDMENTS TO THE ABSTRACT

Please substitute the following paragraph(s) for the abstract now appearing in the currently filed specification:

A system for adjusting resonant frequencies in a linear compressor comprising, in the interior of a shell: a linear motor; a cylinder; a piston reciprocating inside the cylinder; and an actuating means operatively coupling the piston to the linear motor, said system comprising: a detecting means to detect a load imposed to the linear motor, in an operational condition of the latter related to the gas pressure in the discharge thereof; and a frequency adjusting means operatively associated with the detecting means and with the resonant assembly, in order to define, as a function of said operational condition, a frequency adjustment, by varying at least one of the values related to the mass of the resonant assembly and to the average stroke of the piston, to a value of the mechanical resonance frequency corresponding to the electrical supply frequency.